

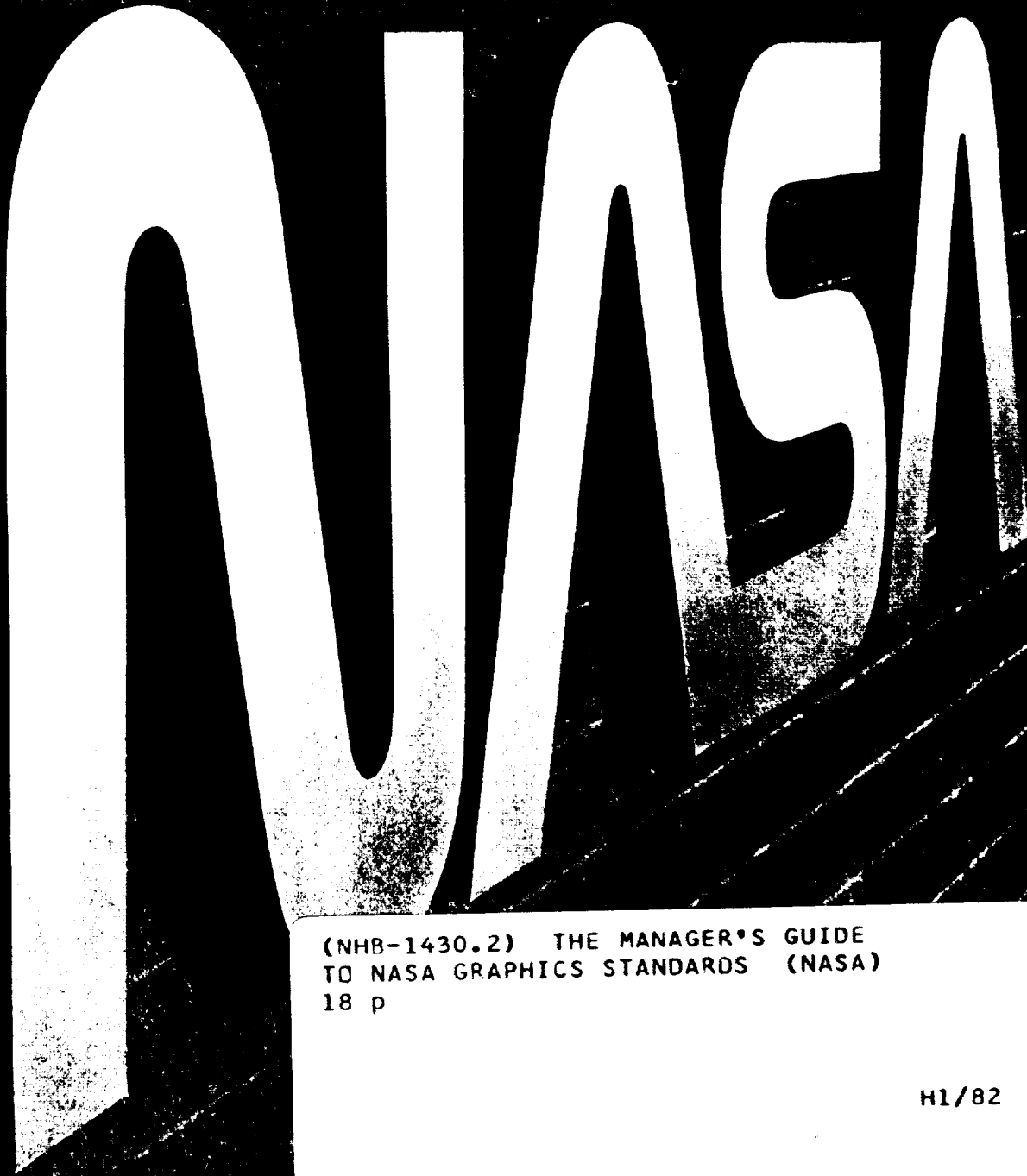
**The Manager's Guide
to NASA
Graphics Standards**

(NHB 1430.2)

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P- 18

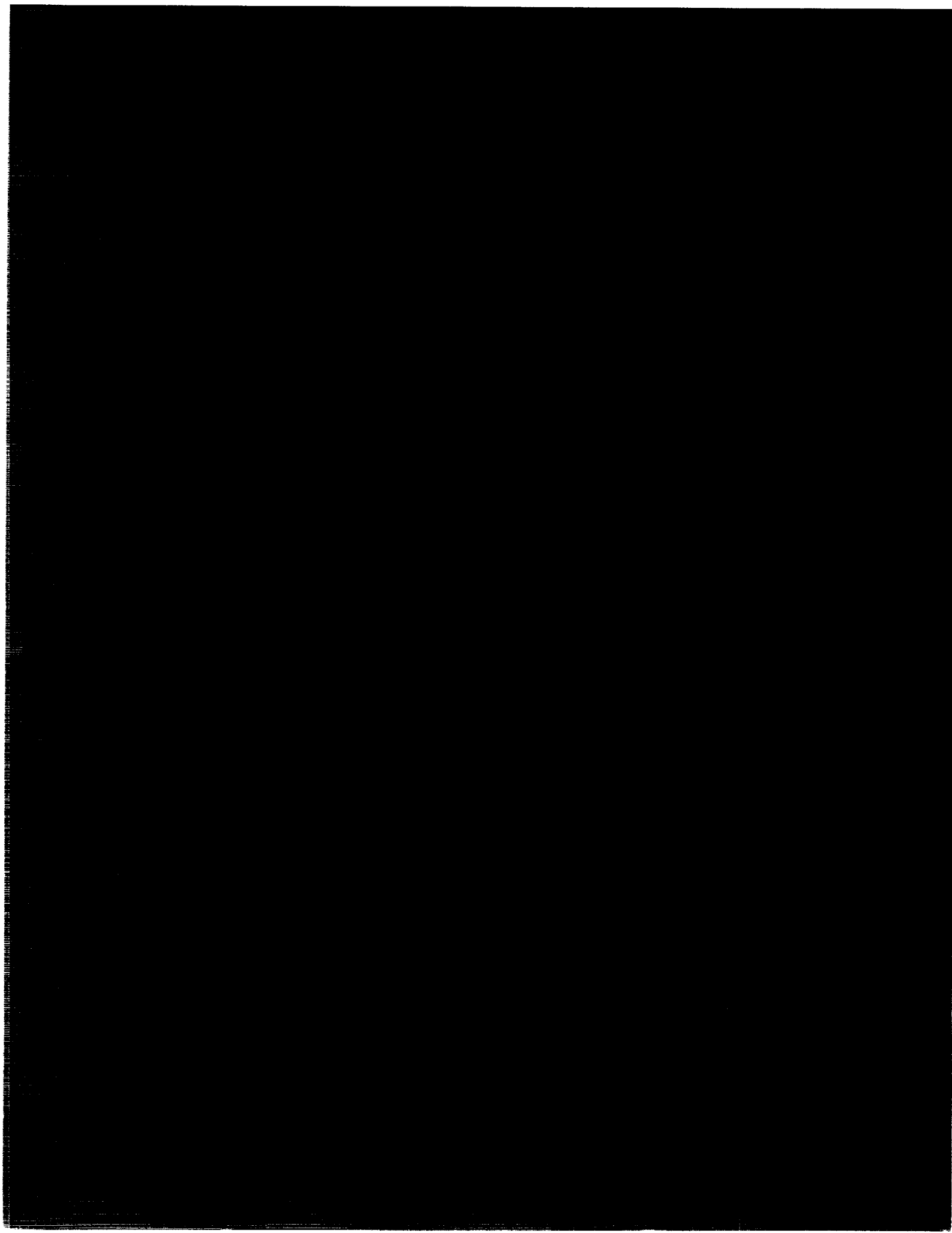


(NHB-1430.2) THE MANAGER'S GUIDE
TO NASA GRAPHICS STANDARDS (NASA)
18 p

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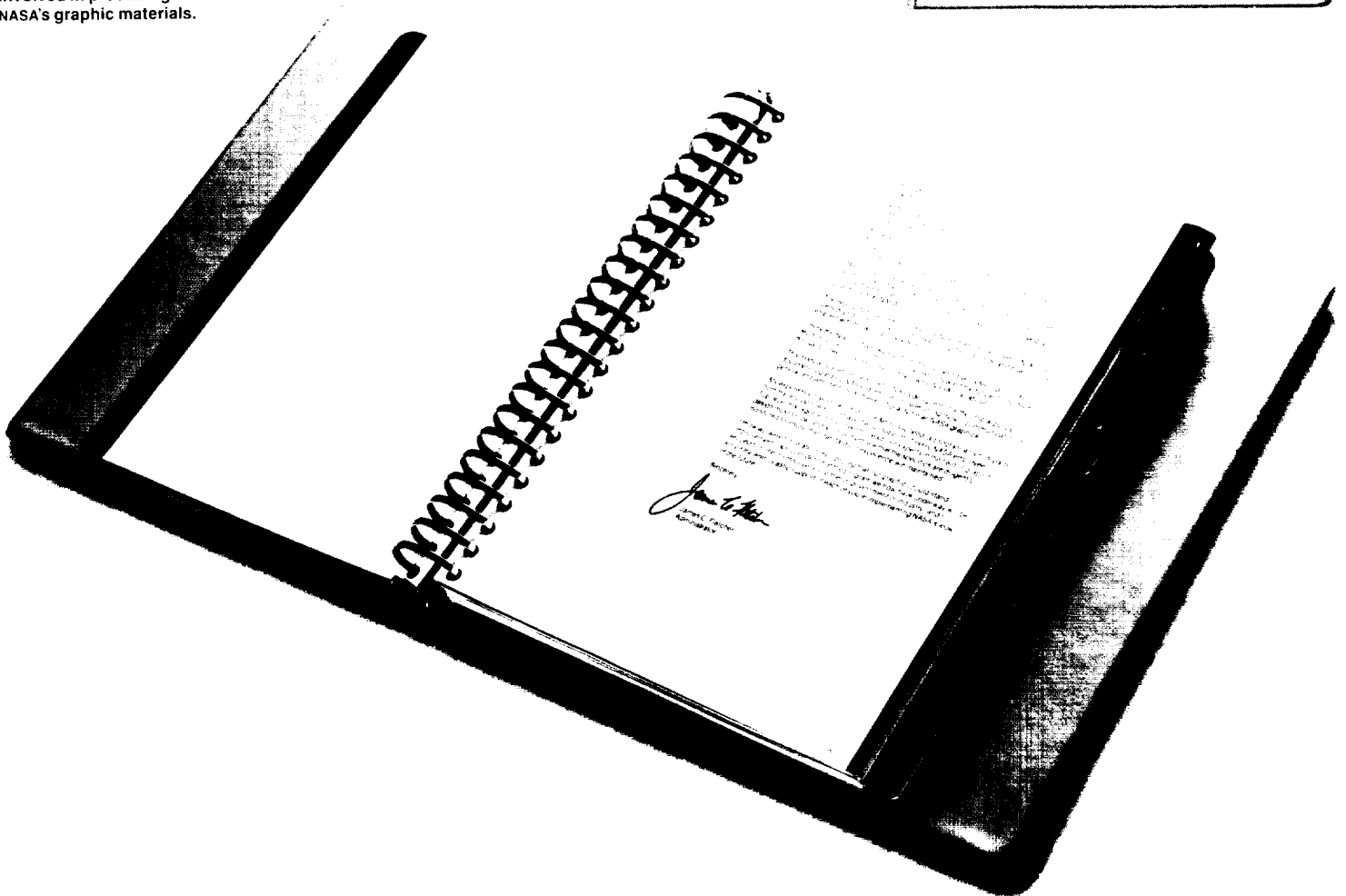
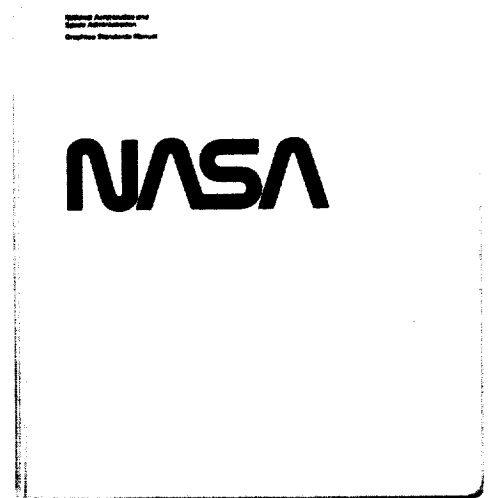
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An Introduction

As managers at NASA, we all have the responsibility to initiate and carry out communication projects with a degree of sophistication that properly reflects the Agency's substantial work. Over the course of the last decade it has become increasingly more important to clearly communicate our objectives in aeronautical research, space exploration and related sciences. Many factors come into play when we set out to prepare communication materials for internal

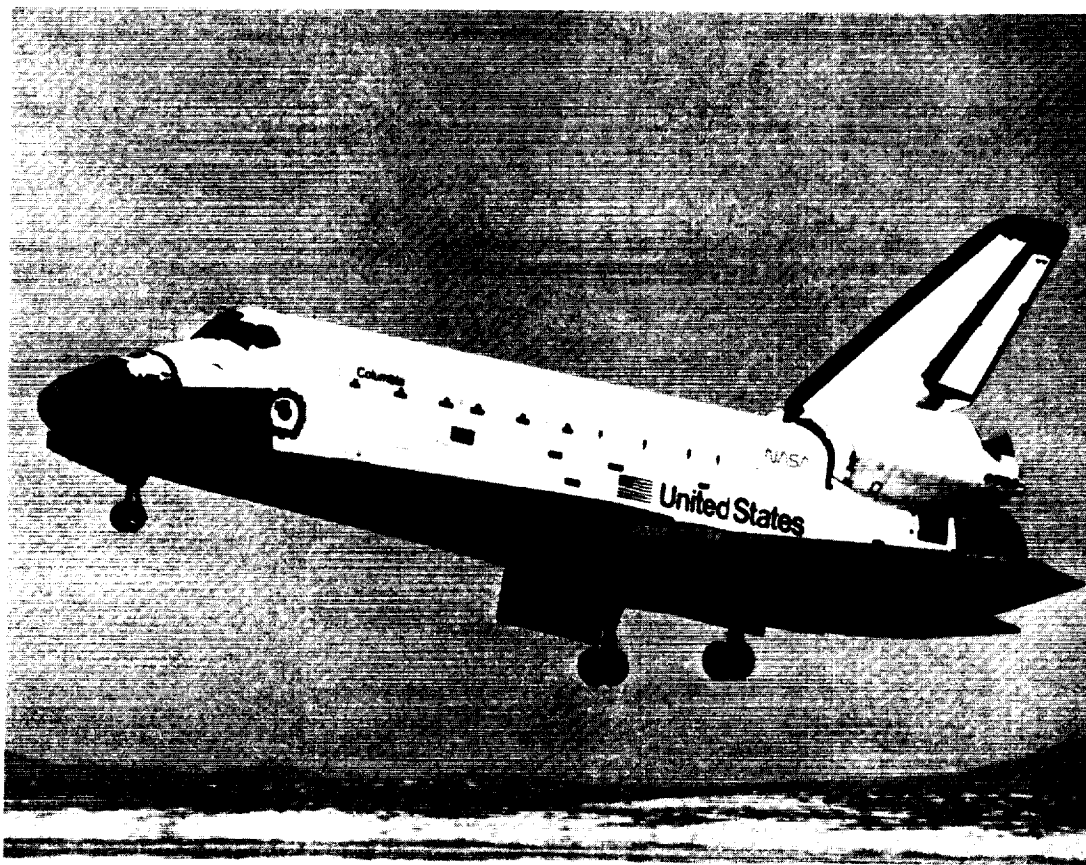
The NASA Graphics Standards Manual (NHB 1430.2) states the official policy of the Unified Visual Communication System. The manual is the primary working tool and reference guide for all those involved in producing NASA's graphic materials.



as well as external use. Three overriding factors are: producing the materials by the most cost-efficient method; ensuring that each item reflects the vitality, knowledge and precision of our organization; and portraying all visual materials with a unified appearance. This guide will serve as the primary tool in meeting these criteria.

This publication spells out the many benefits inherent in the Unified Visual Communication System and describes how the system was developed. The last section lists the graphic

coordinator contacts at Headquarters and the Centers who can assist you when embarking on a graphic project. By understanding the Unified Visual Communication System, you will be able to manage a graphic project from inception through production in the most cost-effective manner while maintaining the quality of NASA communications.



The markings of the Space Shuttle Orbiter *Columbia* incorporate the clean, contemporary and functional NASA identification system. Above, the NASA logotype is applied by stencil to the Shuttle test craft *Enterprise* following the guidelines of the Standards Manual.

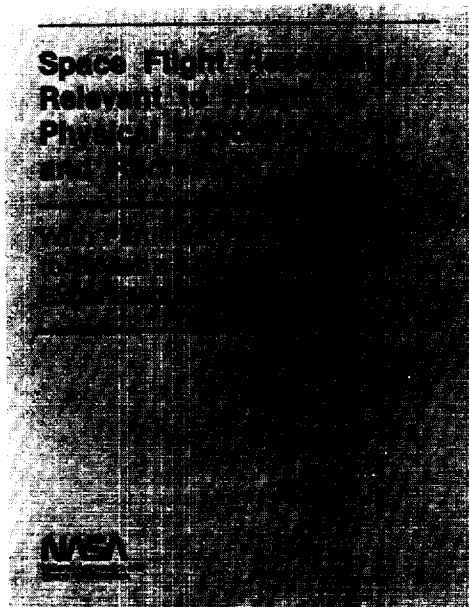
ORIGINAL PAGE
BLACK AND WHITE PHOTOGRAPH

A Case for Graphics Standards

The design process has become much more intricate over the last fifteen years with the advent of new technologies in composition, reproduction and printing. The cost of design as well as the cost of the product has grown at a greatly accelerated rate. The implications of cost savings through standardization have now taken on a greater significance than ever before.

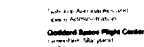
Without standards and a systematic approach to work from, designers have often

been forced to start each project from scratch, in effect re-inventing the wheel rather than applying one carefully determined design concept to all graphic projects. Technology has also provided almost infinite options. With photographic reproduction and its attendant technological advantages, designers can choose from thousands of different typefaces, hundreds of different photographic techniques and printing with almost no restrictions of format. Consequently, designing without appropriate boundaries can be ineffec-



By using the graphics standards, staff designers have been able to use a direct and easy-to-read heading and sub-heading technique in internal publications that require a minimal and economic solution. This typographic solution still allows for ample NASA identification.

Stationery design is a major category of the system. Center letterheads and envelopes employ the logotype and standard elements of graphic style in a single color that conforms to GPO standards. A typing format also has been adopted to present a unified look for Headquarters and the Centers.



NASA

Verification Question

Nov. 10, 1974

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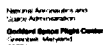
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tive, wasteful through duplication of effort and account for inconsistent and fragmented communications.

In 1975, NASA introduced its Unified Visual Communication System. Similar to any systematic approach, it was developed to save time and money; further, the system has allowed our internal design staff to improve the overall quality of NASA's graphic materials.

The System is based on functional considerations and provides for simplicity of production

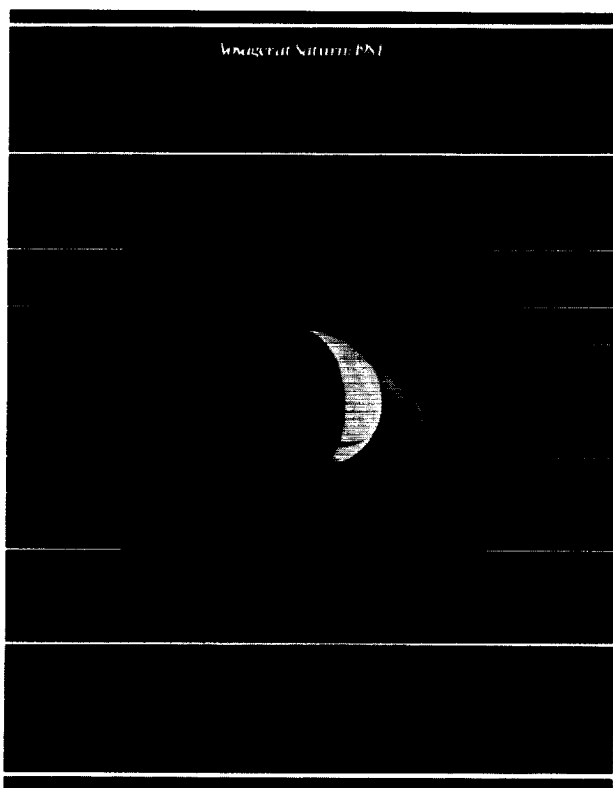
and clarity in communications. By instituting the Unified Visual Communication System we, at NASA, have been able to benefit in many ways:

Substantial Cost Savings—

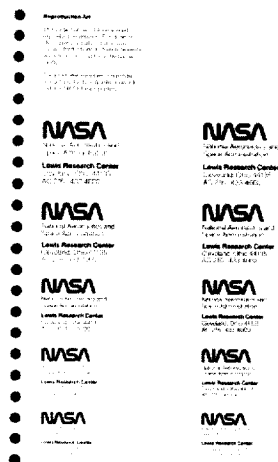
Because of the standardization, significant economies have been realized in the production of materials.

Man-hours reduced—

With a systems approach, time previously devoted to decision-making on many projects has become unnecessary with the advent of systems



This high-quality, 4-color publication specifically features the Voyager project while adhering, in spirit, to the graphics standards. In publications of this sort the NASA identification would appear on the outside back cover.



Camera-ready artwork is pre-assembled into an exact configuration of information (logotype, Agency title, Center identification and address) in a number of sizes. Use of the art ensures consistent high-quality reproduction of the NASA signature. Repro art represents one of the single largest time-saving elements of the system.

planning and operating guidelines.

Improved Productivity—

By using established working grids and standard formats, less time is needed to organize the layout of a publication.

Greater Efficiency Overall—

Communication between managers initiating jobs and the design staff producing the jobs is greatly streamlined since many of the variables have been eliminated by the system.

One, Unified Organization—

Continuity in graphic design reinforces the total Agency, and repetition of the NASA design attitude achieves greater retention.

An Organization-Wide Policy—

With one set policy, confusion is all but eliminated and the policy promotes efficiency and clarity in all communications.

Packaging developed to house audio tapes and film reels which are sent to the broadcast media illustrates how the graphics standards apply to three-dimensional items. By using the system, the packages clearly identify the material as coming from NASA.

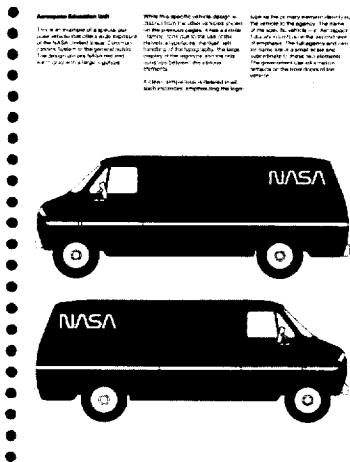


Background on the System

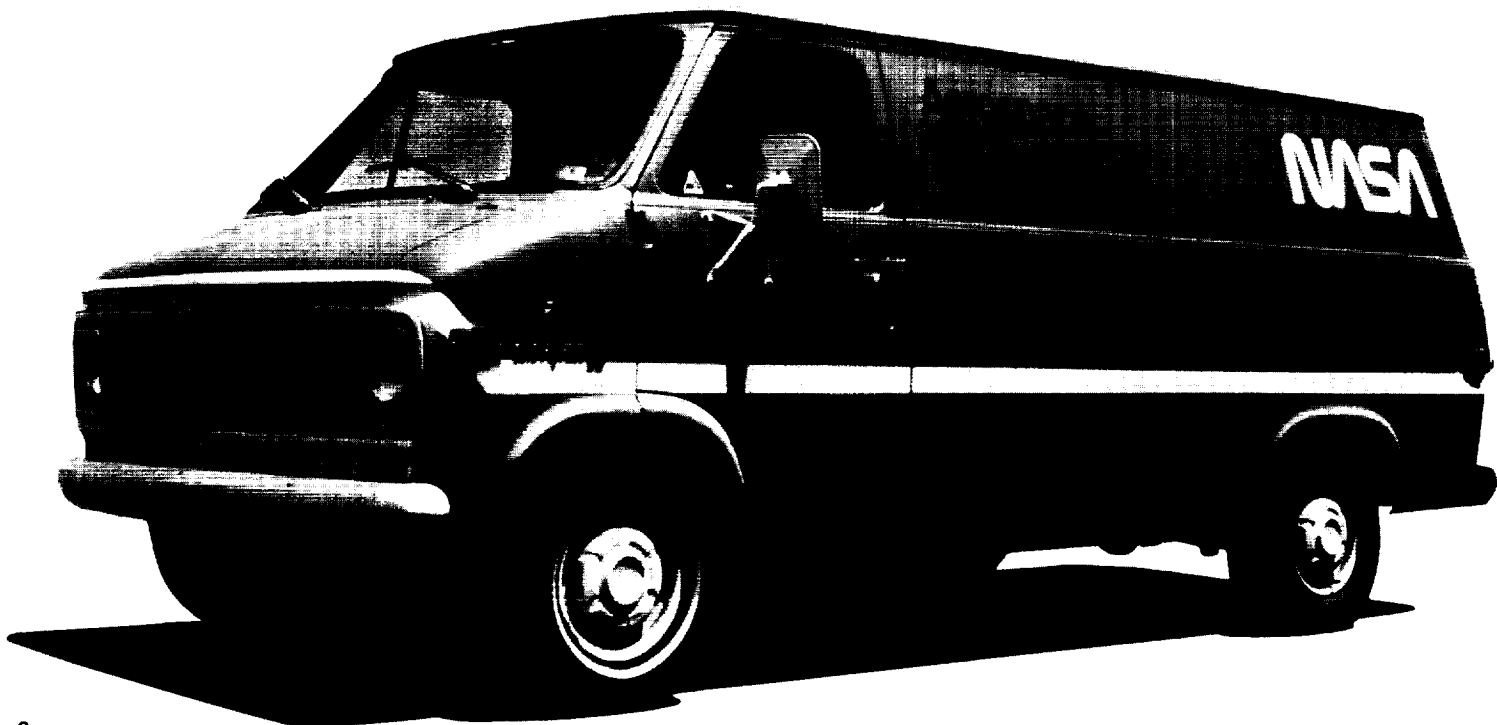
In the early 1970's, the National Endowment for the Arts (NEA) initiated the Federal Graphics Improvement Program. After extensively studying the Canadian and Swiss government design programs, as well as other successful European programs, the NEA reviewed the current graphics output of U.S. government agencies and concluded that the Federal government needed to project a more contemporary posture and a more efficient attitude. The NEA

recommended that unified visual communication systems be created that would not only upgrade the appearance of the Federal agencies, but also prove to be extremely cost-efficient. NASA was one of the first to embark on a redesign program.

During the 1960's, few organizations—institutional or corporate—were more visible than NASA. Space was the "new frontier" and everything the agency did became news. From the Kennedy years straight through to the end of the decade, the national news media cultivated



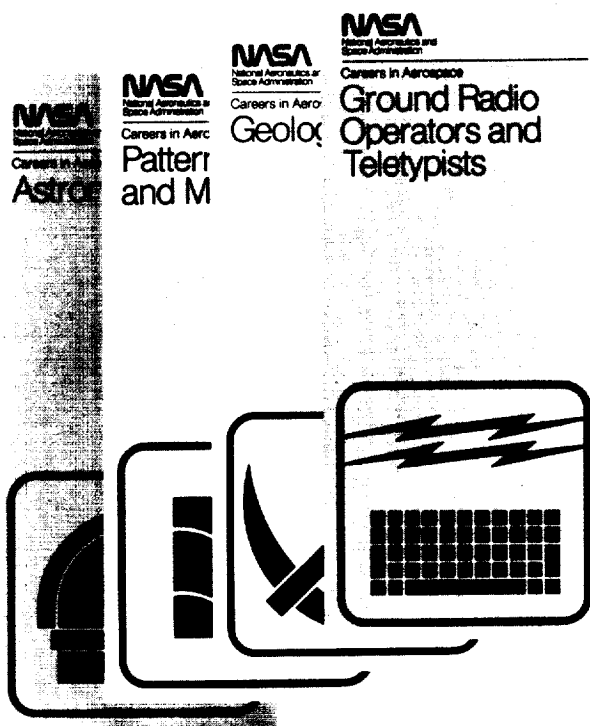
The vehicle schemes have been developed to conform to the Unified Visual Communications System. The vans used by the Aerospace Education Unit were painted following the detailed guidelines shown in the Standards Manual, which were predicated on easy maintenance under heavy use.



and nurtured the NASA "image": the original seven astronauts became national heroes even before they had flown and the space program personified the American spirit. But by 1974, five years after Neil Armstrong set foot on the moon, NASA was no longer in the limelight. In fact, the media, which only a few years earlier had touted NASA's accomplishments, began questioning the importance of the Agency.

The Agency's top administrators acknowledged the need for a unified system that would

clearly communicate NASA's mission. During these down years, the NEA conducted an in-depth graphics audit to see how accurately NASA's own communication output reflected the Agency's mission and its extraordinary accomplishments. The NEA found NASA identification minimal and inadequate. No graphic standards existed; therefore there was no consistency in the appearance or the quality of the work. NASA Headquarters and the ten individual Centers designed materials independently, either internally or through the



NASA Employee Recruiting brochures employ a unified system of covers that use graphic illustrations printed on a variety of color stocks. These publications were developed to facilitate mailing in a standard #10 envelope to keep postage at a minimum.

The before and after comparison of these envelopes illustrates the improvements that can be made on a strictly functional piece. While the earlier envelope appears cluttered, the current envelope is more logically organized and makes maximum use of the NASA logotype.

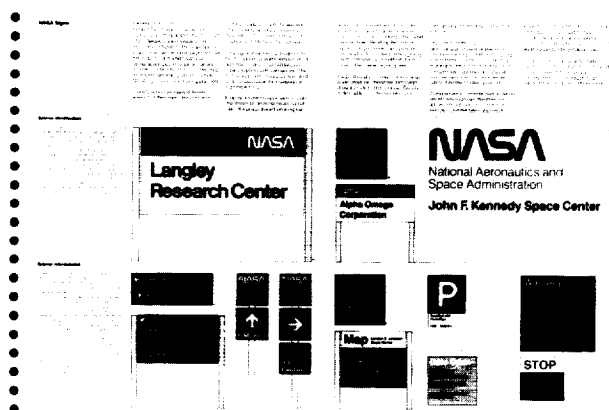


use of outside contractors. In many cases, these materials were produced without attention to an overall graphic plan and most of the work reflected decentralized and narrow perspectives. Overall, the results were confusing, inconsistent and, in many cases, outdated.

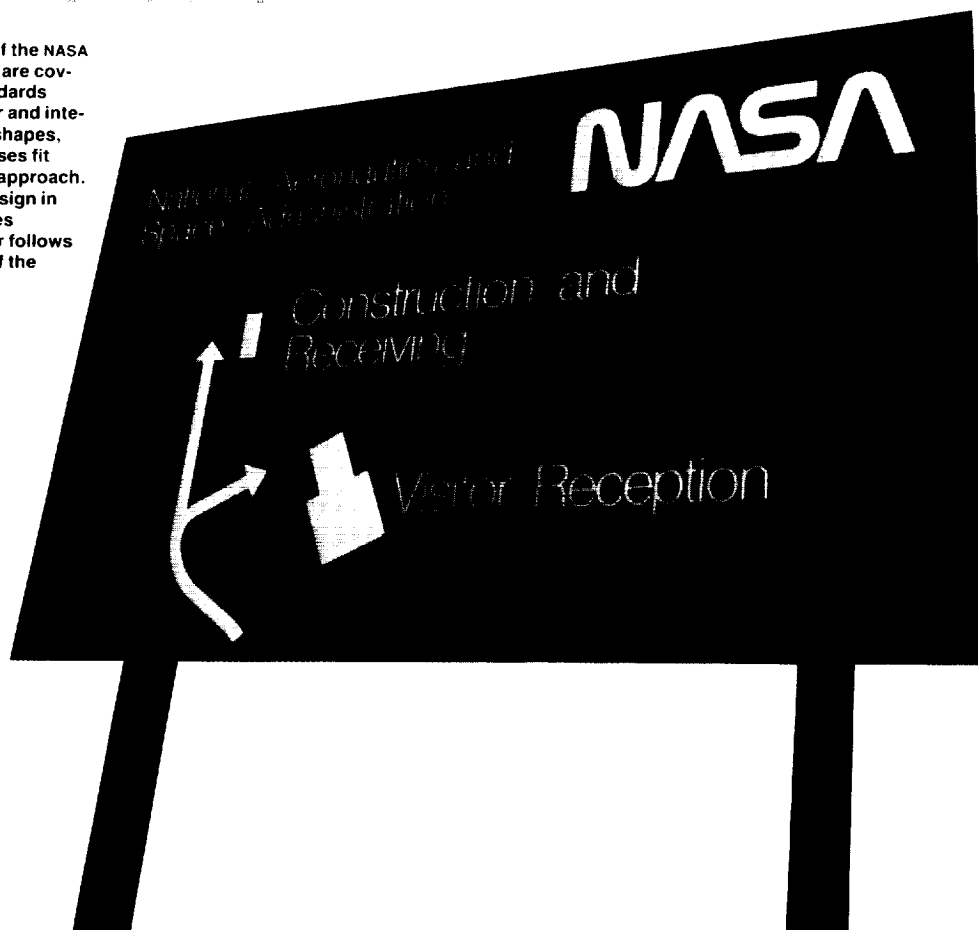
Design Development Begins

Faced with these findings, NASA management acted to correct the problem. A leading U.S. design firm, Danne & Blackburn, Inc., was awarded the contract to develop a Unified Visual Communication System that would allow NASA communications to reflect NASA deeds and the highly technical world in which the agency lives.

After interviewing Headquarters personnel and touring representative Centers to gain a full understanding of the scope and complexity of the



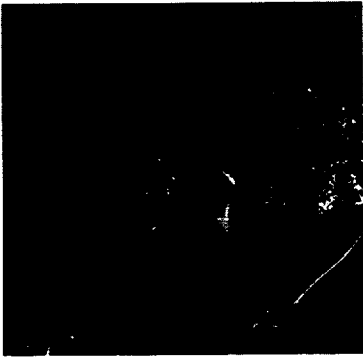
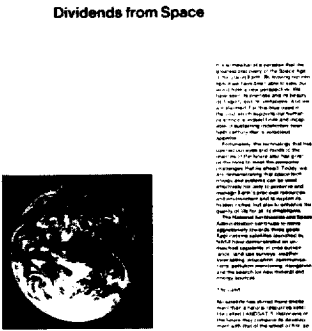
The principles of the NASA Signing System are covered in the Standards Manual. Exterior and interior signs of all shapes, sizes and purposes fit within a unified approach. This directional sign in place at the Ames Research Center follows the guidelines of the system.



Agency, the design consultant recommended a unified graphics system that would include a new communication symbol with formats and guidelines for all NASA identification including stationery, forms, interior and exterior signage, vehicles, uniforms and publications.

The acronym, NASA, was more recognizable than either the full Agency name or its symbol. Through consistent use by the broadcast and print media, "NASA" had become part of the America vocabulary. Building on this equity, the

NASA logotype was developed as the keystone element of the program. By reducing the letters to their simplest form, a strong, easy-to-read identifier emerged that lends itself to use in a variety of sizes in all media and projects a feeling of unity and technical precision. To provide a consistent presentation of each of the NASA Centers in relationship to the total Agency, a typographic system was devised that incorporates the logotype and sets standard configurations for the full Agency name and the Centers.



Use of the grid understructure is evident in the New Horizons high-quality publication. The grid allows for a consistent relationship between the 4-color cover and the interior spreads. Additionally, the typography and images are organized into a cohesive look.

NASA Facts

THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C. 20546
NASA-100

Guidance and Control/ACEE

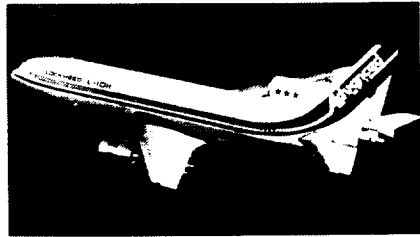


Figure 1: A NASA aircraft, likely a Space Shuttle, in flight. The aircraft is shown from a side-on perspective, flying towards the right. The tail fin is prominent, and the wings are visible. The aircraft is white with black and blue markings. The background is a solid black.

As the United States enters the 21st century, the National Aeronautics and Space Administration (NASA) will continue to play a leading role in the exploration of space. The Agency's mission is to understand the Earth and the universe, and to use the knowledge gained to improve the quality of life on Earth. The Agency's work is divided into four main areas: Earth and Space Science, Human Exploration, Space Technology, and Space Policy. The Agency's work is carried out through a variety of programs, including the Space Shuttle program, the Mars Exploration program, and the Earth Science program. The Agency's work is funded by the U.S. Congress and the U.S. public. The Agency's work is carried out through a variety of programs, including the Space Shuttle program, the Mars Exploration program, and the Earth Science program. The Agency's work is funded by the U.S. Congress and the U.S. public. The Agency's work is carried out through a variety of programs, including the Space Shuttle program, the Mars Exploration program, and the Earth Science program. The Agency's work is funded by the U.S. Congress and the U.S. public.

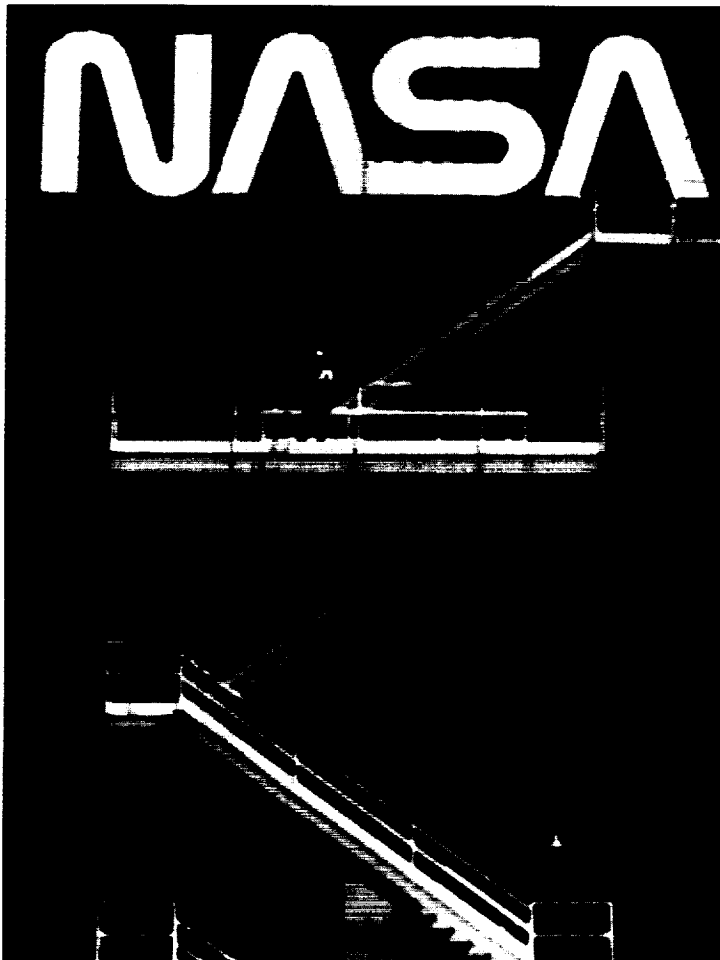
Integration of the NASA logotype with publication titles into a stem-word allows the logotype to become at once a major element and a part of the publication title. This publication was designed to allow for text and photography on the front cover.

The Manual and Implementation

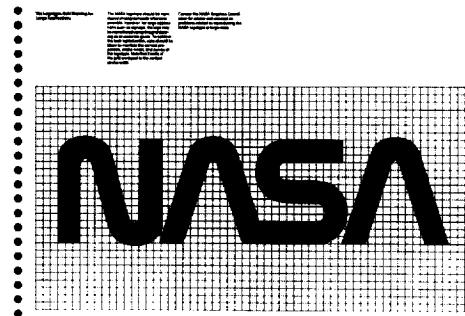
With the central elements developed, work began on the standards for all graphic materials. Because most graphic projects would be developed and produced in-house, it was imperative to produce a comprehensive standards manual that would set forth a consistent official policy for each of the major categories of identification. Ultimately, the manual would serve as a working tool for everyone involved in graphic design and production. The governing factor in the rede-

sign was to streamline each component and build on the essential elements to establish a definite house style. In this way, each item that was designed would reinforce the desired identity; no matter where a project was being developed or produced, the net result would be the same.

Once the program was in place, a series of graphic orientation workshops were held. The purpose was twofold: to introduce the new visual communication system to the people who would be responsible for carrying it out and to go



The manual explains and illustrates how to reproduce the NASA logotype for large-scale use. The grid allows for accurate drawing of the logotype at any scale as shown on a testing facility at the National Space Technology Laboratories.



With items such as stationery, the design is locked in place and no variations are permitted without prior approval from the NASA Graphics Coordinator. Other sections, such as forms, signage and vehicles provide both design solutions for specific examples as well as systems which aid in efficiently solving additional visual communication problems.

Publication design can be a very difficult problem to efficiently solve because very often there are no previous examples to follow.

The Manual eliminates the necessity for designers and publications personnel to wrestle with many time-consuming decisions they have had to make in the past. Many of the basic design decisions (how to use the identity elements, what colors to use, which typeface to specify, which paper stock to order) are now predetermined or limited to a small number of choices.

Publications are planned and prepared employing a grid system. This predetermined understructure gives the publications a cohesive

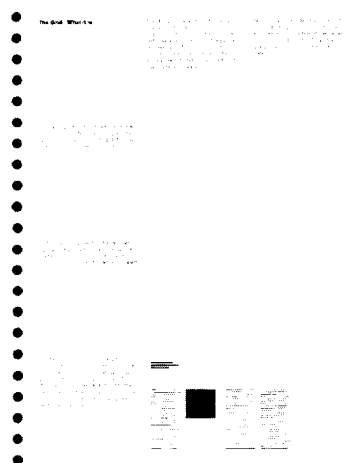


The system even extends to uniforms, flight suits and embroidered patches. Consistent use of the NASA identification in all two and three-dimensional applications is critical to maximize the system's effectiveness and portrays the Agency as a unified, cohesive organization.



style and character. Its use allows for organizing all material, including typography and photography, in an efficient, sequential manner, thus saving countless hours in execution.

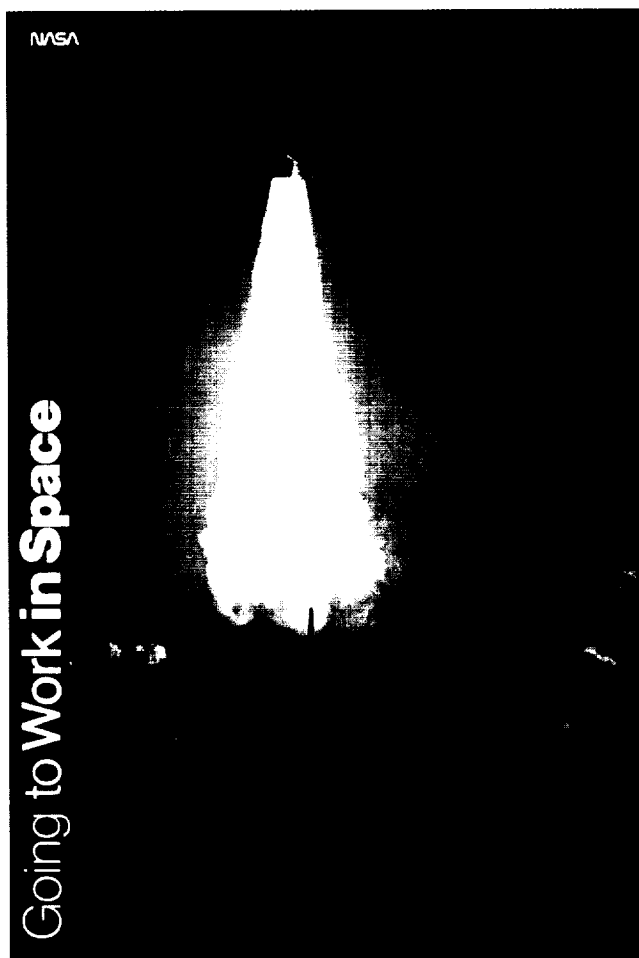
The Graphics Standards Manual has four recommended type styles from which to choose. Each has a specific reason for being included and should be used accordingly. By predetermining the choice of type styles that are most effective for NASA's use, another time-saving area is recognized and greater cohesion is achieved.



In the Publications section of the manual, the grid is explained as a predetermined understructure which the designer can employ to give a publication a cohesive style and character. Because it organizes material, the grid saves countless man-hours when executing a publication.

The System's most basic time-saving area is in the reproduction of the NASA logotype. Whenever possible, the logotype should be reproduced photographically from the camera-ready reproduction artwork that is furnished in the Manual. Use of this artwork not only saves time when preparing graphic materials, but also guarantees proper proportions and a consistent display of the logotype and accompanying typography. However, for large applications such as signage, the logotype may be reproduced using the grid draw-

Inventive use of large display typography in a simple, contemporary manner and high-quality photography were utilized in a series of posters commemorating the maiden flight of the Space Shuttle Orbiter *Columbia* developed for sale by the Government Printing Office.



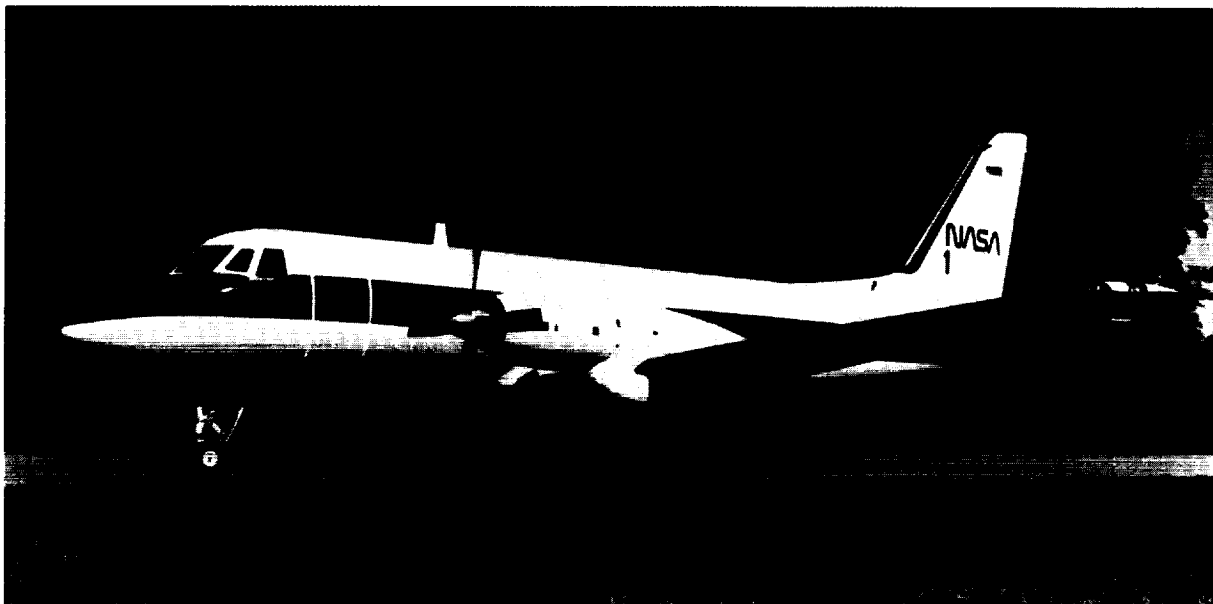
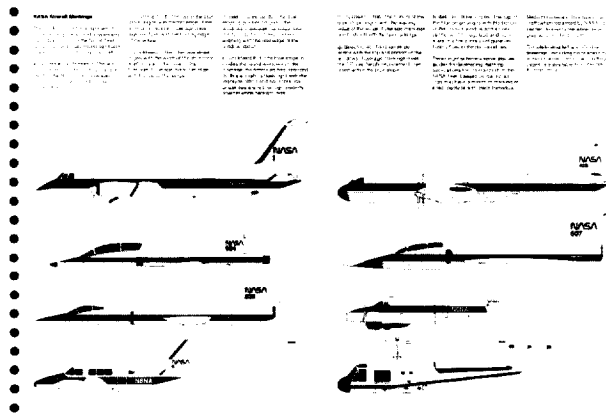
ing in the Manual, as an accurate guide.

Overall, the Standards Manual should be seen as a management tool that promotes practical and efficient methods of production that will ensure consistency in all of the Agency's visual communications.

When preparing a graphic project, consult the Manual for guidance and contact your local graphics coordinator or, for major projects, the NASA Graphics Coordinator at Headquarters Public Affairs Division (LFF-12).

The NASA System

The Unified Visual Communication System has reached maturity over the seven years since its introduction. The principles of the System have been translated into reality throughout the Agency and, as the examples in this guide clearly illustrate, every aspect of the System promotes an appropriate and consistent solution to a graphic problem. This guide has been prepared to demonstrate the soundness of the total system and give you, as managers, the ability to maintain the

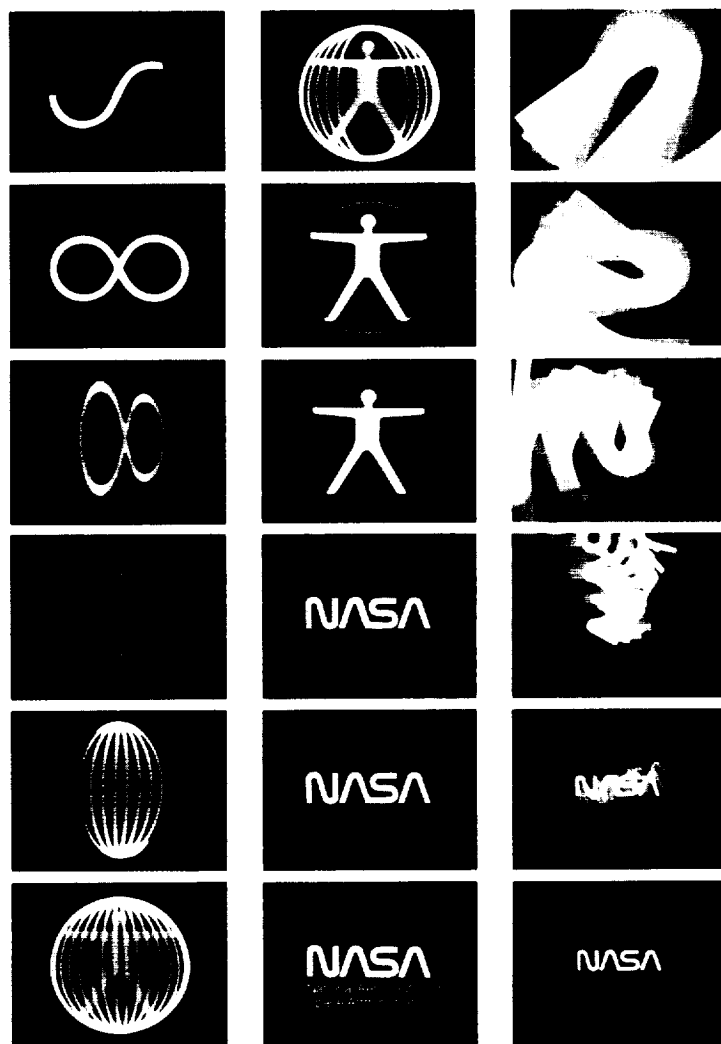


The marking scheme developed through a systems approach adapts well to the wide range of aircraft shapes and sizes that comprise the NASA fleet. Not only does the system ensure that the aircraft are painted correctly, but it also portrays a unified, cohesive fleet.

momentum of the NASA communication program.

In the years ahead, the Unified Visual Communication System will become even more valuable. Every graphic project produced that adheres to the spirit of the System will further enhance our position as the leader in aeronautical research and space exploration.

The NASA identification is evident in the official opening and closing sequences of NASA motion picture productions. These sequences demonstrate an extension of the NASA elements into an animated sequence further illustrating the flexibility of the system.



Award certificates demonstrate the proper use of the NASA seal. The seal reflects the history and tradition of the Agency and should only be used in connection with awards presentations, formal events and activities which are ceremonial in nature. In these cases the seal replaces the NASA logotype.



The National Aeronautics and Space Administration

Joseph H. Johnson

The NASA Public Service Award

For outstanding contributions to the advancement of the Nation's space program, the President of the United States has authorized the award of the NASA Public Service Award. The award is presented to individuals who have made significant contributions to the Nation's space program.

John B. French

September 7, 1980

NASA Graphics Coordinators

There are resources available to help develop and produce publications and other graphic projects at each of the NASA Centers and at Headquarters. All questions relating to publications and the design of other visual materials should be referred to the contact at your location.

Headquarters

NASA Graphics Coordinator
LFF-12
202 755-8332
FTS 8-755-8332

Chief, Graphics Management &
Presentations Branch
NHB-17
202 755-2073
FTS 8-755-2073

Ames Research Center & Hugh L. Dryden Flight Research Facility

Chief, Graphics &
Exhibits Branch
ATG-241-14
415 965-5658
FTS 8-448-5658

Goddard Space Flight Center & Wallops Flight Center

Head, Graphic Arts Branch
253.0-Building 8
301 344-4494
FTS 8-344-8494

Jet Propulsion Laboratory

Supervisor, Graphics Department
111-130
213 354-7120
FTS 8-792-7120

Lyndon B. Johnson Space Center & White Sands

Graphics Coordinator
JM 29
713 483-6268
FTS 8-525-6268

John F. Kennedy

Space Center

Chief, Repro-Graphics Section
SI-SAT-51
305 867-4256
FTS 8-823-4256

George C. Marshall

Space Flight Center

Chief, Visual
Information Division
AS-31
205 453-5440
FTS 8-872-5440

Langley Research Center

Head, Photo/Graphics Branch
MS 426
804 865-3344
FTS 8-928-3344

Lewis Research Center

Chief, Management
Services Division
MS 5-5
216 433-6285
FTS 8-294-6285

National Space Technology Labs

Tech Manager/Tech Services Lab
GA-10
601 688-2000
FTS 8-494-2000